

Notice of Allowability

Application No.

10/621,955

Examiner

Minh N. Tang

Applicant(s)

RYDER ET AL.

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 7/16/2003.
2. ☒ The allowed claim(s) is/are 1-9.
3. ☒ The drawings filed on 16 July 2003 and 29 August 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 8/25/03
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

1. The information disclosure statement (IDS) submitted on August 25, 2003 is considered by the examiner.
2. The drawings (amendments in Figs. 1A, 1B, 2A and 2B) were received on August 29, 2003. These drawings are approved.
3. The Preliminary Amendments filed on August 29, 2003 and October 17, 2003 are entered.

EXAMINER'S AMENDMENT

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Manus on August 05, 2004.

The Examiner called Mr. Manus because of the informalities in claim 1 and an improper multiple dependent claim in claim 8.

The application has been amended as follows:

a/ in claim 1

- line 1, insert -- plunge -- between "A" and "transport mechanism".
- line 13, insert -- of the test circuit -- between "the connectors" and ".".

b/ in claim 8, line 1, insert -- any one of -- between "mechanism of" and "claims".

REASONS FOR ALLOWANCE

5. The following is an examiner's statement of reasons for allowance:

Claims 1-8 recite, inter alia, a plunge transport mechanism for an electronic device test-handler grips and carries a device under test (DUT) in a first direction from a pick-up point to a test site where the DUT is driven into electrical connection with a test circuit via leads on the DUT that each align with and contact an associated connector at the test site, comprising: an elongated probe extending generally in said first direction from one end operatively connected to said drive to a tip and moving with said drive between said retracted position and said extended position, said probe operatively connecting said vacuum source to said tip that is proximate the DUT at the pick-up point such that the DUT at said pick-up point is gripped by said vacuum suction in a fixed position with respect to said probe during the operation of said drive and probe to carry the DUT along said first direction to the test site and into electrical connection with the connectors of the test circuit.

Claim 9 recites, inter alia, a method for transporting an electronic device under test (DUT) at a test site into and out of electrical connection with a fixed set of connectors of a test circuit, said transporting being in a reciprocating, plunging movement along a first direction, comprising: gripping the DUT at said free end with a vacuum with sufficient force that the DUT remains in a substantially fixed position with respect to said probe during said transporting and connection, and resisting a lateral deformation of the probe due to the weight of the DUT thus gripped or force developed by contact between the DUT and the connectors of the test circuit.


The art of record does not disclose the above limitations, nor would it be obvious to modify the art of record so as to include the above limitations.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh N. Tang whose telephone number is (571) 272-1971. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mrs. Cuneo, Kamand can be reached on (571) 272-1957. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Minh N. Tang
Primary Examiner
Art Unit 2829
8/05/04